



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,264	04/22/2004	Toshiaki Akahoshi	040185	6446

23850 7590 05/05/2006

ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP
1725 K STREET, NW
SUITE 1000
WASHINGTON, DC 20006

EXAMINER

FIORITO, JAMES

ART UNIT PAPER NUMBER

1754

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/829,264

Applicant(s)

AKAHOSHI, TOSHIAKI

Examiner

James A. Fiorito

Art Unit

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

Claim Objections

Claim 1 is objected to because of the following informalities: Claim 1 recites "adding a water-soluble alcohol to the separated solution to separate and recover the deposited ammonium orthomolybdate from a second solution for separation", it appears that the claim should recite "adding a water-soluble alcohol to the separated solution to deposit and recover the ammonium orthomolybdate from a second solution for separation". Also, claim one recites, "distilling the second solution for separation to separate and recover the water-soluble alcohol and a residue solution", it appears the claim should recite "distilling the second solution to separate and recover the water-soluble alcohol and a residue solution". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1754

Claims 1-~~13~~8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the system" in the last line. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hubred '495 in view of Veal '072 and Nalewajek '184.

Hubred discloses a process for separating and recovering valuable metals, comprising the steps of: leaching a raw material containing at least vanadium oxides and molybdenum oxides with ammonia-containing leaching water to obtain a leached solution containing a vanadium compound and a molybdenum compound wherein at least a portion of the residue solution is added to the ammonia-containing leaching water as a portion thereof (Column 3-4).

Hubred does not expressly state adding ammonium orthomolybdate to the leached solution to separate and recover the deposited ammonium metavanadate from a first solution for separation.

Veal discloses a process with a step of adding ammonium orthomolybdate to separate and recover deposited ammonium metavanadate from an aqueous solution containing ammonium orthomolybdate and ammonium metavanadate (Column 6).

Hubred and Veal are analogous art because they are from the same field of endeavor, namely recovering metal from spent catalyst.

At the time of invention it would have been obvious to a person ordinary skill in the art to substitute the vanadium precipitation step of Hubred with a step of adding ammonium orthomolybdate to the leached solution to separate and recover the deposited ammonium metavanadate from a first solution for separation of the vanadium in view of the teaching of Veal. The suggestion or motivation for doing so would have been to selectively precipitate the ammonium metavanadate (Column 6).

Hubred in view of Veal does not disclose the step of adding a water-soluble alcohol to the separated solution to separate and recover the deposited ammonium orthomolybdate from a second solution for separation, and distilling the second solution to separate and recover the water-soluble alcohol and a residue solution, and the water-soluble alcohol is returned to the system for reusing.

Nalewajek discloses a process with a step of adding a water-soluble alcohol to a solution to separate and recover ammonium orthomolybdate, and distilling the solution to separate and recover the water-soluble alcohol, and the water-soluble alcohol is returned to the system for reusing (Column 3-4). Hubred, Veal and Nalewajek are analogous art because they are from the same field of endeavor namely, processes of precipitating molybdate.

At the time of invention it would have been obvious to a person ordinary skill in the art to substitute the molybdate precipitation step of Hubred in view of Veal with, adding a water-soluble alcohol to the separated solution to separate and recover the deposited ammonium orthomolybdate from a second solution for separation, and distilling the second solution to separate and recover the water-soluble alcohol and a residue solution, and the water-soluble alcohol is returned to the system for reusing in view of the teaching of Veal. The suggestion or motivation for doing so would have been to selectively precipitate the ammonium orthomolybdate (Column 4).

It would have been obvious to return to the system a portion of the recovered ammonium orthomolybdate for reusing, since it is required by the ammonium vanadate step of Hubred in view of Veal.

With respect to Claim 2, Hubred discloses that the raw material is obtained by roasting a spent catalyst (Abstract).

With respect to Claim 3, Nalewajek discloses that the water soluble alcohol is ethanol (Column 4).

With respect to Claim 4, Hubred discloses that the ammonia used in the leaching step is distilled and recycled.

With respect to Claims 5-8, it appears that the limitations overlap with Hubred in view of Veal and Nalewajek.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lyaudet '109 discloses a process for the separate recovery of molybdenum and vanadium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Fiorito whose telephone number is (571)272-7426. The examiner can normally be reached on Standard.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on (571) 272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James Fiorito
Patent Examiner
AU 1754

JF


Steven Bos
Primary Patent Examiner
Au 1754